

## CLAIMS

1. A bed comprising a supporting structure for a resting element that lies along a main longitudinal axis, characterized in that said resting element is associated with movement means that are adapted to move on command  
5 said resting element with an oscillating motion about a tilting axis that is substantially parallel to said main longitudinal axis.

2. The bed according to claim 1, characterized in that it comprises conversion means that are adapted to convert said resting element from a flat condition to a substantially shell-like configuration.

10 3. The bed according to claim 1 or 2, characterized in that said resting element, in said substantially shell-like configuration, has a concavity that is directed upward during use.

4. The bed according to one or more of the preceding claims, characterized in that said resting element has at least two transverse portions  
15 that are arranged in succession along said main longitudinal axis, said at least two transverse portions having mutual connection means that are adapted to allow, on command, an angular movement of one transverse portion with respect to the other transverse portion about a transverse axis that is substantially perpendicular to said main longitudinal axis.

20 5. The bed according to one or more of the preceding claims, characterized in that said resting element comprises at least three longitudinal elements, which can be moved with respect to each other about respective mutual connection axes in order to shift between said flat condition, in which said at least three longitudinal elements lie substantially  
25 on the same plane of arrangement, and a shell-like condition, in which said at least three longitudinal elements cooperate in order to obtain said substantially shell-like configuration.

6. The bed according to one or more of the preceding claims, characterized in that said conversion means comprise actuation means that  
30 are adapted to move said at least three longitudinal elements in an angular

fashion with respect to each other about the respective mutual connection axis.

7. The bed according to one or more of the preceding claims, characterized in that said resting element comprises an internal longitudinal portion and at least two external longitudinal portions that are arranged on opposite sides with respect to said at least one internal longitudinal portion relative to the main longitudinal axis, said at least one internal longitudinal portion and said at least two external longitudinal portions being arranged, when said resting element is in the flat condition, on the same plane of arrangement, said conversion means comprising means for lifting/lowering said at least one internal longitudinal portion with respect to said supporting structure and means for the angular movement, about a respective movement axis that is substantially parallel to the main longitudinal axis, of said pair of external longitudinal portions in order to obtain said shell-like configuration.

8. The bed according to one or more of the preceding claims, characterized in that said internal longitudinal portion comprises at least one pair of longitudinal members, said supporting structure comprising an external profile that has two supporting bars, each one of said external longitudinal portions being associated with a respective longitudinal member and with a respective supporting bar, which are arranged on the same side with respect to said internal longitudinal portion, said lifting/lowering means being adapted to move said pair of longitudinal members with respect to said external profile along a direction that is substantially perpendicular to the plane of arrangement of said internal longitudinal portion and to move in an angular fashion said external longitudinal portions about a respective angular movement axis.

9. The bed according to one or more of the preceding claims, characterized in that said at least two longitudinal members support a first plurality of cross-members, which are mutually spaced along said main

longitudinal axis, second pluralities of cross-members being provided which are mutually spaced along said main longitudinal axis and are associated with said supporting bars and with said longitudinal members.

10        5        10. The bed according to one or more of the preceding claims, characterized in that each one of said second pluralities of cross-members has a first portion for pivoting to a respective supporting bar and a second end that is supported so that it can slide by a respective longitudinal member.

10        11. The bed according to one or more of the preceding claims, characterized in that said longitudinal members have a diverging arrangement at the respective end portions that are located toward the head of the bed.

15        12. The bed according to one or more of the preceding claims, characterized in that said movement means comprise motor means that are kinematically connected to at least one movement element, which comprises a respective driving shaft that is adapted to rotate with a back-and-forth motion in order to cause the oscillation of said resting element about said tilting axis.

20        13. The bed according to one or more of the preceding claims, characterized in that each transverse portion is associated with a respective movement element.

25        14. The bed according to one or more of the preceding claims, characterized in that said resting element comprises an intermediate transverse portion, a transverse head portion and a transverse foot portion, respective mutual connection means being provided between said intermediate transverse portion and said foot portion and between said intermediate transverse portion and said head portion.

30        15. The bed according to one or more of the preceding claims, characterized in that it comprises articulation devices between said movement elements arranged in succession.

16. The bed according to one or more of the preceding claims, characterized in that it comprises a mattress device that is designed to be arranged on top of said resting element during use.

17. The bed according to one or more of the preceding claims,  
5 characterized in that said mattress device comprises a plurality of mattresses that are adapted to arrange their respective peripheral edges at said transverse axes and at said connection means.

18. The bed according to one or more of the preceding claims,  
10 characterized in that said shell-like element is connected to a respective protective side at the upper longitudinal edges.

19. The bed according to one or more of the preceding claims, characterized in that said protective side is associated with guiding means that are adapted to keep said protective side substantially vertical.

20. The bed according to one or more of the preceding claims,  
15 characterized in that it comprises covering means that are detachably associable on top of said mattress element.

21. The bed according to one or more of the preceding claims, characterized in that said covering means comprise a panel that is shaped like a shell and is substantially impermeable.